

Region 9 Enforcement and Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	August 17 – 18, 2023 and January 16, 2024	Inspection(s) Announced: No	
Time #1:	Entry #1: 10:05 am (August 17, 2023)	Exit #1: 2:29 pm (August 18, 2023)	
Time #2:	Entry #2: 9:20 am (January 16, 2024)	Exit #2: 4:50 pm (January 16, 2024)	
Media:	RCRA		
Regulatory Program(s)	RCRA Subtitle C: Hazardous Waste Program;		
Company Name:	Apple, Inc.		
Facility or Site Name:	Same		
Facility Location(s): (city, state, zip code)	3250 Scott Blvd, Santa Clara, CA 95054		
Mailing Address: (city, state, zip code)	1 Apple Park Way, M/S 319 EHS Cupertino, CA 95014		
Geographic Coordinates:	37.378670 / -121.971840 [www.latlong.net]		
County:	Santa Clara County		
Facility/Site Contact:	Tom Huynh	EHS Manager	
	tom.huynh@apple.com		
	(408) 595-0947		
Facility/Site Identifier:	EPA ID Number: CAR 000 278 176 and CAT 000 623 983		
Generator Status:	<p>EPA inspected one Apple, Inc. (Apple) facility located at 3250 Scott Blvd in Santa Clara, CA (EPA ID Number CAR 000 278 176). This facility operates as Large Quantity Generator (LQG) of RCRA and non-RCRA hazardous waste (NRHW) in the State of California. This facility also operates as a Small Quantity Handler of Universal Waste Batteries.</p> <p>According to RCRA Info, Apple's Santa Clara location was also assigned a second EPA ID Number (i.e., CAT 000 623 983) in September of 1986. This second EPA ID Number is related to a historic clean-up, initiated by one of the previous owners of the site, Synergy Semiconductor. On November 6, 2020, Apple notified EPA that this specific cleanup activity and the EPA ID Number associated with the cleanup (i.e., CAT 000 623 983), are no longer active under RCRA.</p>		
NAICS:	334111 [Electronic Computer Manufacturing].		
SIC:	3571 [Electronic Computers].		
Facility/Site Personnel Participating in Inspection:			
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Demonte Rose	ACT Enviro		
Allen Sherlock	Apple, Inc.		
Joe Loft	Apple, Inc.	Facilities Engineer	
Other Personnel Participating in Inspection:			
Frederick Chun	Santa Clara Fire Department	Assistant Fire Marshall / CUPA Manager	fchun@santaclaraca.gov (408) 615-4961
Inspector(s):			
Christopher Rollins (Lead Inspector)	CHRISTOPHER ROLLINS Digitally signed by CHRISTOPHER ROLLINS Date: 2024.04.25 09:43:36 -07'00'		
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Peer Review:			
Mark Anthony Relon	MARK ANTHONY RELON Digitally signed by MARK ANTHONY RELON Date: 2024.04.29 17:31:53 -07'00'		
	US EPA, Region 9 Mail Code: ENF 2-2	Physical Scientist	relon.markanthony@epa.gov (415) 972-3252
Kaoru Morimoto	Morimoto, Kaoru Digitally signed by Morimoto, Kaoru Date: 2024.04.30 08:42:42 -07'00'		
	US EPA, Region 9 Mail Code: ENF 2	Assistant Director, Air, Waste & Chemicals Branch	morimoto.kaoru@epa.gov (415) 972-3306

SECTION I – INTRODUCTION

Purpose of the Inspection

The purpose of the inspection was to determine Apple, Inc.'s (Apple) compliance with applicable federal environmental statutes and regulations, and in particular, the Resource Conservation and Recovery Act (RCRA), as amended, the hazardous waste regulations provided in the Code of Federal Regulations (CFR), Chapter 40, Parts 260 - 266, 268, 270, 273, and 279, the California Health and Safety Code (HSC), Division 20, Chapter 6.5; and the California Code of Regulations (CCR), Title 22, Division 4.5.¹

Opening Conference

August 17, 2023

On August 17, 2023, EPA Region 9 Inspector Christopher Rollins, arrived at Apple's 3250 Scott Blvd facility in Santa Clara, CA at 10:00 am. Frederick Chun, Assistant Fire Marshall for the Santa Clara Fire Department (the CUPA)² was already onsite. EPA's participation in the inspection was unannounced. However, the CUPA inspector had previously scheduled a Large Quantity Generator (LQG) and Business Plan inspection with the facility three weeks prior.

Upon our arrival at the main entrance, both EPA and the CUPA were greeted by Apple's environmental staff. The inspectors were introduced to Tom Huynh (EHS Manager), Kevin Sung (EHS Engineer) and Grace Fisk (EHS Engineer) of Apple at 10:05 am.

After introductions, the inspectors were escorted to a small table located outside of the facility to begin the Opening Conference. The EPA inspector (Christopher Rollins) presented his federal credentials to the Apple representatives and informed the facility that this RCRA hazardous waste inspection was based on a Tip and Complaint from the public.

EPA also informed Apple, that the agency would be evaluating the facility's RCRA operations and reviewing the facility's records to confirm compliance with the LQG requirements. Once EPA answered some of the facility's questions regarding the Tip and Complaint the inspector gave an overview of the inspection process to all those present.

¹ All citations in this report that refer to the California Code of Regulations (CCR) refer to Division 4.5 of Title 22 of the current California Code of Regulations. EPA is enforcing California hazardous waste management program requirements as approved and authorized by the United States on August 1, 1992 (see 57 Fed. Reg. 32726, July 23, 1992), September 26, 2001 (66 Fed. Reg. 49118, September 26, 2001), and October 7, 2011 (see 76 Fed. Reg. 62303, October 7, 2011). Corresponding Federal citations are provided as a convenience in brackets.

² CUPA stands for the Certified Unified Program Agency and is made up of local entities certified by CalEPA to implement and enforce six hazardous waste and hazardous materials regulatory management programs in California.

The inspection would consist of a general walk-through of the facility, which would include the facility's Central Accumulation Area (CAA)³, Satellite Accumulation Areas (SAAs), and Laboratories. EPA would also review the facility's storage records, hazardous waste manifests, and other operating records required under RCRA. EPA then donned personal protective equipment and began the facility walk-through⁴.

August 18, 2023

The following day, Inspector Rollins continued the RCRA inspection and arrived at the Apple facility at 8:15 am. The purpose of the second day of inspections was to review records and focus on the waste generation process onsite. EPA departed the site at 2:29 pm.

The CUPA's Frederick Chun did not participate in EPA's second day of inspections. However, EPA's Anuka King from Region 9's Risk Management Program managed under the Clean Air Act (i.e., 112 r Program) did accompany Inspector Rollins on the inspection.

January 16, 2024

A follow-up inspection was conducted by EPA Region 9 at the Apple site on January 16, 2024. The purpose of the follow-up inspection was to walk the (b)(4) Floor and review certain (b)(4) in order to understand Apple's (b)(4) processes, and the wastes generated from those processes.

EPA inspectors Christopher Rollins and Mark Anthony Relon participated in the follow-up inspection. No CUPA inspectors were present during this follow-up inspection, which began at 9:20 am and ended at 4:50 pm the same day.

Facility/Site Description

Apple's Santa Clara facility is a (b)(4) (b)(4) Research and Development (R&D) Facility. The facility has two buildings in the immediate area and has a total of approximately 300 - 350 employees. The Santa Clara site has been in operation since about 2016. Apple's main building (Building 1) operates 24 hours a day, 5 days a week (M-F) and generates primarily RCRA organic and corrosive hazardous wastes (i.e., solids and liquids) from various R&D operations onsite. Building 2 serves as an office building and generates no wastes.

The Bay Area Air Quality Management District (BAAQMD) issued Apple a Permit to Operate (Plant No. 22839) under the Clean Air Act on or about May 6, 2023 (Attachment B). The permit

³ As of May 30, 2017, EPA refers to less than 90-day hazardous waste accumulation areas (for Large Quantity Generators) and less than 180-day hazardous waste accumulation areas (for Small Quantity Generators) as Central Accumulation Areas (reference 81 FR 85732 and 81 FR 85743).

⁴ The observations of each walk-through inspection and the records review findings are captured in "Section II – Observations, Potential Violations and Areas of Concern" of this inspection report. Only those observations that were recorded and/or documented as potential violations or areas of concern were noted in Section II.

allows the facility to use solvents and corrosives at their Solvent Sink Stations, Solvent Vapor Stations, in their Wipe Cleaning Operations, and in their ~~8(4)~~ and Solvent Base ~~8(4)~~ Operations. These same chemicals once spent are potentially regulated under RCRA as federal and/or state regulated hazardous wastes. Apple's BAAQMD permit is expected to expire on May 1, 2024.

On November 20, 2020, Apple obtained an Industrial Wastewater Discharge Permit (Permit No. SC-461B) from the San Jose-Santa Clara Regional Wastewater Facility (Attachment C) and manages an Acid Waste Neutralization (AWN) Tank System and a Heavy Metals Rinsate (HMR) Tank System that were issued under the State of California's "Permit By Rule," provisions [Title 22 of the California Code of Regulations (CCR) § 67450.2]. As such, the facility is authorized to treat corrosive hazardous wastes in its AWN Tank System, separate out heavy metals using the facilities HMR Tank System, and discharge the treated wastewater directly to the sanitary sewer (Attachments D & E).

The facilities AWN Tank System includes four tanks, comprising of equalization and pH adjustment tanks. Apple's HMR Tank System includes two lift stations (SLW2/HMR-LS and HMR-LS), two equalization tanks (HMR-TNK-2 and HMR-TNK-4), a pH adjuster tank (HMR-TNK-3), a vacuum distillation evaporator (VDE-1), and a heavy metal concentrate tank (HMC-TNK-2). Apple's AWN Tank System and HMR Tank System are also covered under the State of California's "Permit by Rule" provisions.

Apple also manages a 1,700-gallon RCRA hazardous waste solvent tank that is also regulated under California's "Permit by Rule"⁵ provisions (Attachment F). The spent solvent waste accumulated in the facility's spent solvent tank is generated from various R&D ~~8(4)~~ ~~B(4)~~ operations upstream. During the August 17, 2023 inspection, EPA documented that Apple's 1,700-gallon solvent tank vents to a 55-gallon canister of activated carbon. At the time of the inspection, the canister of activated carbon was not permitted under the Clean Air Act. Nor was the canister being managed by Apple under RCRA's air emission regulations.

The facility's solvent waste tank system is comprised of a 67-gallon double-walled solvent waste lift station (SW-LS) that pumps solvent wastes within the building; a solvent waste collection cabinet (SW-CC)⁶ with two 55-gallon containers used historically for storage; a 1,700-gallon double-walled storage tank (SW-TNK-2); and a solvent waste transfer station (SW-TFS-1). The

⁵ The State of California's "Permit By Rule" Provisions are codified under 22 CCR § 67450.2.

⁶ Currently, the solvent waste collection cabinet is no longer in service and does not directly contact or store solvents pumped through the system.


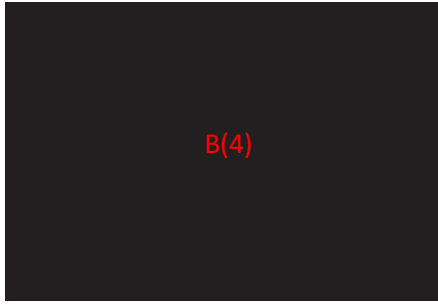
solvent waste transfer station is used to transfer solvents from the storage tank to a vacuum truck or tote for the purposes of disposal.


The specific waste streams observed and/or documented onsite consist primarily of spent solvent waste, corrosive wastes, corrosive solvent mixtures, sludges and solid lab debris. Based on the facility's 2021 Biennial Report the facility reports generating federally regulated hazardous waste with EPA waste codes D001, D002, D003, D004, D011, D035, F003 and F005.

According to the California Environmental Reporting System (CERS), Apple was last inspected by the CUPA on October 26, 2020 and December 23, 2020. No RCRA violations were documented during these inspections.

EPA checked the agency's RCRAInfo database and according to that database, R9 doesn't appear to have inspected this location prior to the Agency's August 17, 2023 inspection.

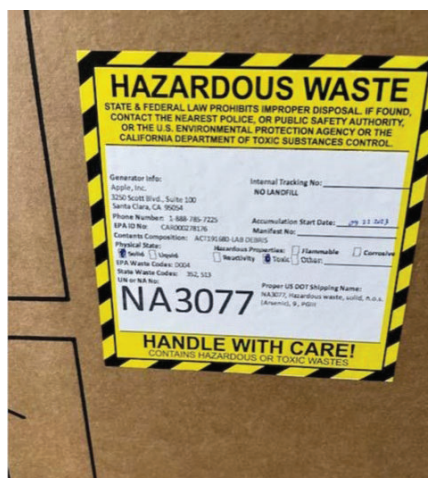
SECTION II – OBSERVATIONS, POTENTIAL VIOLATIONS AND AREAS OF CONCERN

Observation(s)	Photograph(s)	Potential Violations
<p><u>Observation #1 (Aug 2023):</u> EPA observed nineteen closed 5-gallon containers of liquid waste stacked against the wall in Apple's Building 1 East - Compartment 1 Indoor CAA Shed (The Bunker Area). The labels on the majority of the nineteen containers identified the contents of each waste stream as containing corrosive liquids (D002 Waste).</p> <p>The nineteen containers were stacked in a pile three containers high, four containers across, and two containers in depth. Two of the 5-gallon containers on the very top of the pile (Photo 1a), were missing their hazardous waste labels and not properly marked with Accumulation Start Dates (ASDs), as required while in storage at the CAA.</p> <p>According to Apple, the two containers missing their labels and</p>	 <p>Photo 1a (P8170006.JPG)</p>  <p>Photo 1b (P8180009.JPG)</p>	<p><u>Potential Violation #1 (Aug 2023):</u> EPA observed nineteen closed 5-gallon containers of corrosive liquids (D002 Waste) in Apple's Bunker Area. Two of the containers were not properly dated to indicate how long the waste had been stored onsite or marked to identify the contents as hazardous under RCRA.</p> <p>In addition, eleven of the hazardous waste container labels were not clearly visible for inspection, and one container was stored onsite for greater than 90-days, with an ASD of March 2, 2023. These waste streams all appear to be RCRA regulated hazardous waste.</p> <p>Sections §§ 66262.34(a)(1)(A) and 66262.34(f)(1) – (3) of Title 22 of the California Code of Regulations (CCR) states that generators who accumulate hazardous waste on site without a permit or grant of interim</p>

<p>ASDs were placed in the Bunker Area the morning of EPA's inspection. The staff maintaining the area would later return to properly mark and date the waste in accordance with RCRA. These 5-gallon containers were required to be properly labeled and dated prior to arriving at the CAA.</p> <p>The inspectors also observed that eight of the nineteen 5-gallon containers stacked in the back of the pile and three of the containers stacked in the front of the pile were not clearly visible for inspection, without physically moving each of the containers. In addition, one of the nineteen containers of corrosive waste stacked in the back of the pile was stored onsite for greater than 90-days (Photo 1c). The ASD on this container was listed as March 2, 2023, and the contents for this container were marked as "B(4) 7".</p> <p>The next day, Apple did mark the two unlabeled containers, properly identifying the contents of the waste streams as corrosive waste (D002 Waste). The facility recorded the ASD of August 17, 2023 on each container.</p> <p>Apple managed this area as a less than 90-day hazardous waste accumulation area. Prior to EPA's inspection, no Apple employees were actively working in the Bunker Area, filling or emptying any of the containers while they were in storage.</p>	 <p>Photo 1c (P8180010.JPG)</p>	<p>status shall comply with the following:</p> <ol style="list-style-type: none"> (1) The date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container and portable tank; (2) The date the applicable accumulation period specified in subsection (a) or (d) of this section begins, for purposes of subsections (a) and (b) of this section, shall be clearly marked and visible for inspection on each container and tank; (3) Each container and tank used for onsite accumulation of hazardous waste shall be labeled or marked clearly with the words, "Hazardous Waste." Additionally, all containers and portable tanks shall be labeled with the following information: <ol style="list-style-type: none"> A) Composition and physical state of the wastes; B) Statement or statements which call attention to the particular hazardous properties of the waste (e.g., flammable, reactive, etc.); C) Name and address of the person producing the waste <p>[40 CFR § 262.17(a)(5)(A) – (5)(C)].</p> <p>Section § 66262.34(c) of Title 22 of the CCR states that a generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of chapters 14 and 15 of this division and the permit</p>
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⁷ Later it was determined by EPA that the correct name for this waste stream was "B(4)". According to Apple's Safety Data Sheet, this chemical substance was manufactured in Japan and has no pH or Flash Point value established for this product.

The Bunker Area is located downstream from Apple's initial waste generation activities.



RTC Photo

requirements of chapter 20 of this division unless the generator has been granted an extension to the 90-day period or meets the requirements of subsection (d) or (e) of this section [\[40 CFR § 262.17\(b\)\]](#).

The facility returned to compliance with these potential violations on or about September 8, 2023. Specifically, Apple labeled and dated the two unknown 5-gallon containers of waste, processed the 5-gallon container of "B(4)" waste through the Acid Waste Neutralization (AWN) System, and manifested the empty container off for disposal on Manifest 018419007 FLE (See RTC Photo).

Lastly, according to Apple, the facility changed its storage procedures so that all of the labels on the 5-gallon containers in the Bunker Area are now stored with their labels pointing outward.

Observation #2 (Aug 2023): EPA observed one open 5-gallon container marked as "Adhesive Liquids and Tape" in Apple's Bunker Area (Photo 2a). According to the label on the container, the waste was being managed as both a flammable and toxic waste (Photo 2b). At the time of the inspection, EPA could not determine whether this waste was federal, or state only regulated waste.

The container had an ASD of July, 22, 2023 and appeared to have too many metal canisters of flammable liquid waste inside of the container that prevented the lid from closing properly.



Photo 2a (P8170013.JPG)

Potential Violation #2 (Aug 2023): EPA observed an open 5-gallon container of "Adhesive Liquids and Tape" in Apple's Bunker Area. It was later determined that this waste stream was California Only waste and therefore not regulated by EPA.

Section [§ 66265.173\(a\)](#) of Title 22 of the CCR states that a container holding hazardous waste shall always be closed during transfer and storage, except when it is necessary to add or remove waste.

The facility returned to compliance with this potential violation on August 18, 2023, when Apple closed the container in accordance with California's regulations (See Photo 2c).

Apple managed this area as a less than 90-day hazardous waste storage area. Prior to EPA's inspection, no Apple employees were actively working in the Bunker Area, filling or emptying any of the containers that were in storage.

The Bunker Area is located downstream from Apple's initial waste generation activities.

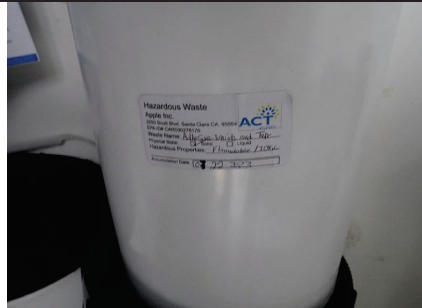


Photo 2b (P8170014.JPG)



Photo 2c (P8180013.JPG)

Observation #3 (Aug 2023): EPA observed a closed 5-gallon container marked as "Silicone" waste in Apple's Bunker Area (Photo 3a). According to the label on the container the waste was being managed as a toxic waste. At the time of the inspection, EPA could not determine whether this waste was federal, or state only regulated waste.

In addition, the container appeared to be stored onsite for greater than 90-days. The ASD on this container was recorded as March 16, 2022 on the label.

Apple managed this area as a less than 90-day hazardous waste



Photo 3a (P8170015.JPG)

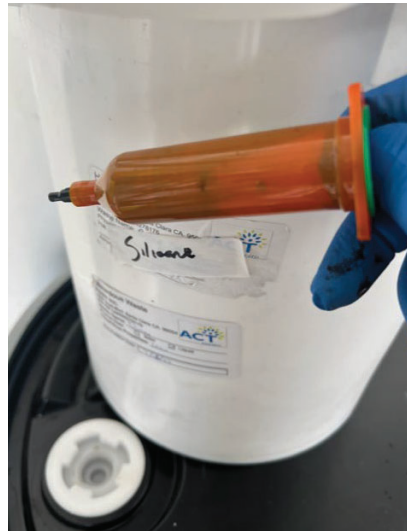
Potential Violation #3 (Aug 2023): EPA observed a closed 5-gallon container of "Silicone" waste in Apple's Bunker Area. Based on the container's ASD the waste was stored onsite for more than 90-days (ASD = March 16, 2022), without a RCRA permit as required by State law.

It was later determined that this waste was California Only waste (NRHW), and therefore not regulated by EPA.

Section [§ 66262.34\(c\)](#) of Title 22 of the CCR states that a generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to

storage area. Prior to EPA's inspection, no Apple employees were actively working in the Bunker Area, filling or emptying any of the containers that were in storage.

The Bunker Area is located downstream from Apple's initial waste generation activities.



RTC Photo

the requirements of chapters 14 and 15 of this division and the permit requirements of chapter 20 of this division unless the generator has been granted an extension to the 90-day period or meets the requirements of subsection (d) or (e) of this section.

The facility returned to compliance with this potential violation on or about September 8, 2023. Specifically, Apple removed the one dispenser tube inside of the container used to dispense adhesives (See RTC Photo) and disposed of the material as NRHW on Manifest 018419007 FLE.

Observation #4 (Aug 2023): EPA observed different sized waste containers on the floor in Apple's Bunker Area (Photo 4a). Specifically, EPA observed six 1-gallon containers of "[REDACTED]" a small container of "Boric Acid," and three unknown containers of waste in this area.

According to Apple, the waste containers on the floor were expired waste that were placed in the Bunker Area the morning of August 17, 2023, and just hadn't been marked as hazardous waste or dated, prior to EPA's arrival. These waste containers were required to be properly labeled and dated prior to arriving at the CAA.

Apple managed this area as a less than 90-day hazardous waste storage area. Prior to EPA's inspection, no Apple employees were actively working in the Bunker Area, filling or emptying





Photo 4a (P8170016.JPG)



Potential Violation #4 (Aug 2023): EPA observed six 1-gallon waste containers of "[REDACTED]" (D002 Waste), a small container of "Boric Acid" (NRHW), and three unknown containers in Apple's Bunker Area. At the time of EPA's inspection, a waste determination had not been performed on the waste streams to determine if the materials were hazardous waste or whether they were regulated federally or by the State of California.

It was later determined that this waste was a mixture of NRHW and RCRA regulated hazardous waste. Therefore, some of the waste is regulated by EPA.

Section [§ 66262.11](#) of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [\[40 CFR § 262.11\]](#).

The facility returned to compliance with this potential violation on or

<p>any of the containers that were in storage.</p> <p>The Bunker Area is located downstream from Apple's initial waste generation activities.</p>		<p>about September 8, 2023. Specifically, Apple properly containerized, labeled and dated the waste containers in this area in accordance with RCRA.</p>
<p><u>Observation #5 (Aug 2023):</u> EPA observed one open 55-gallon container marked as "Mega Posit," waste in Apple's Bunker Area (Photo 5a). The label on the container indicated that the waste was being managed as a corrosive liquid (Photo 5b).</p> <p>According to Apple, the container's bung cap was left open in order to prevent the container from building up too much pressure while in storage. EPA informed the facility that the container must always remain closed during storage, and recommended that the facility purchase a closure device, for future use, to allow the container to periodically vent pressure while in storage.</p> <p>Apple managed this area as a less than 90-day hazardous waste storage area. Prior to EPA's inspection, no Apple employees were actively working in the Bunker Area, filling or emptying any of the containers that were in storage.</p> <p>The Bunker Area is located downstream from Apple's initial waste generation activities.</p>	 <p>Photo 5a (P8170020.JPG)</p>  <p>Photo 5b (P8170021.JPG)</p>	<p><u>Potential Violation #5 (Aug 2023):</u> EPA observed one open 55-gallon container marked as "Mega Posit," waste in Apple's Bunker Area. The waste was being managed as a corrosive liquid (D002 Waste).</p> <p>According to Apple, the container was left open in order to prevent the container from building up too much pressure while in storage. This waste stream appears to be a RCRA regulated hazardous waste.</p> <p>Sections §§ 66262.34(a)(1)(A) and 66265.173(b) of Title 22 of the CCR states that a container holding hazardous waste shall not be opened, handled, transferred or stored in a manner which may rupture the container or cause it to leak. Re-use of containers for transportation shall comply with the requirements of the U.S. Department of Transportation regulations, including those set forth in 49 CFR section 173.28 [40 CFR § 262.17(a)(1)(iv)(A)].</p> <p>The facility returned to compliance with this potential violation on or about September 8, 2023. Specifically, Apple closed the 55-gallon container of "Mega Posit," while in storage (See Photo 5c) and then placed the waste through the Acid Waste Neutralization (AWN) System.</p> <p>Moving forward, Apple states that the "Mega Posit" will no longer be managed in a 55-gallon container</p>

	 <p>Photo 5c (P8180012.JPG)</p>	<p>but in a 5-gallon container and poured directly into the AWN Tank System.</p>
<p><u>Observation #6 (Aug 2023):</u> EPA observed one 1,700-gallon stainless-steel solvent waste tank (SW-TNK-2) inside Building 1 of Apple's facility (Photo 6a). The stainless steel, double-walled tank is used for the accumulation of spent solvent waste generated from R&D operations onsite, and is filled continuously on a 24 hour, 5-days a week basis (M-F).</p> <p>Based on Apple's records, the spent solvent waste was being managed as a NRHW liquid (CA-133 – Attachment G). Specifically, the waste was identified as "Water with Solvents," directly on the hazardous waste label posted on Apple's solvent waste tank (Photos 6a and 6b).</p> <p>Previous waste profiles and manifests identify Apple's spent solvent waste as containing either F-Listed waste (D001 and F003 waste) or ignitable waste (D001 waste). Both of the previous waste streams are federally regulated. Therefore, if regulated as a D001 or F003 waste, Apple would be required to store,</p>	 <p>Photo 6a (P8170051.JPG)</p>	<p><u>Potential Violation #6 (Aug 2023):</u> EPA observed a 1,700-gallon stainless-steel, double-walled solvent waste tank (SW-TNK-2) inside Building 1 of Apple's facility. The contents of the hazardous waste tank were being managed as a NRHW liquid (CA-133 Waste). To date, Apple has not provided evidence regarding how the spent solvents were determined to be California Only waste.</p> <p>After EPA's inspection it was determined that the source of the spent solvent waste entering the solvent waste tank is characteristic for ignitability and should be, at a minimum, managed as a D001 hazardous waste stream at the point of origination.</p> <p>Moreover, Apple appears to have been improperly treating the waste entering this hazardous waste unit, without a permit by diluting the solvent waste with water and other wastes.</p> <p>Under RCRA, diluting hazardous waste whether intentionally or unintentionally to remove a wastes'</p>

manifest and dispose of the solvents based on specific Land Disposal Restrictions (LDR) listed under 40 CFR Part 268 of RCRA. At the time of the inspections Apple did not provide adequate documentation verifying why the facility is currently managing their solvent waste as California Only Waste (CA-133).

Later, it was determined by EPA (See Potential Violations #9 and #10) that the source of the waste that is being placed in the solvent waste tank meets the definition of ignitable waste (D001 Waste). As such, the tank is regulated as a RCRA hazardous waste storage tank.

At the time of EPA's inspection, the spent solvent tank was in operation, not being repaired or solvents removed while in service, and the tank was not being managed under any exemptions.

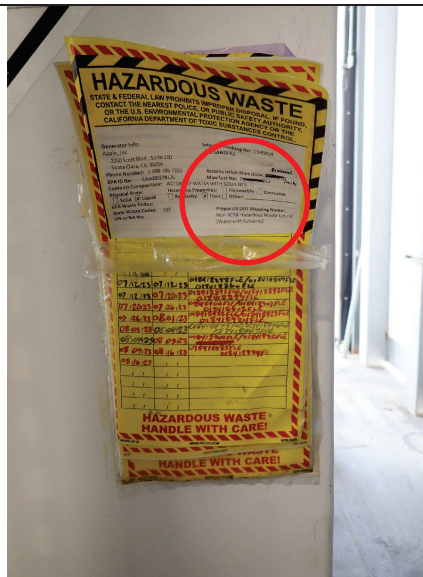


Photo 6b (P8170052.JPG)

characteristics is considered a form of treatment. It is improper to treat hazardous waste without a permit unless the type of treatment is covered under an exemption.

Apple does not have a permit to treat its solvent waste in the 1,700-gallon solvent waste tank. Nor does the facility appear to meet an exemption from treatment under RCRA.

Section [§ 66262.11](#) of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [\[40 CFR § 262.11\]](#).

Section [§ 66270.1\(c\)](#) of Title 22 of the CCR states that a permit is required for the "transfer," "treatment," "storage," and "disposal of any waste which is hazardous waste pursuant to section 66261.3 and as defined in section 66260.10 [\[40 CFR § 270.1\(c\)\]](#)."

These potential violations are still outstanding.

Observation #7 (Aug 2023): EPA observed one 55-gallon canister of "Activated Carbon" on the roof of Building 1 (Photo 7a). The container was connected to Apple's 1,700-gallon spent solvent tank (SW-TNK-2). The device was used to capture Volatile Organic Compounds (VOCs) released from the spent solvent tank located directly below. This device was not described or referenced in Apple's October 2022 Hazardous Waste Tank System Assessment.



According to Apple, the device was covered under a Clean Air Act



Photo 7a (P8170062.JPG)

Potential Violation #7 (Aug 2023): EPA observed a 55-gallon canister of "Activated Carbon" on the roof of Building 1. At the time of the inspection, Apple's canister of "Activated Carbon" was not covered under the facility's Clean Air Act permit as an air emissions device. Nor was the device included or referenced in Apple's October 2022 Hazardous Waste Tank System Assessment.

Later it was determined that Apple has been managing their "Activated Carbon" as a NRHW since at least December 14, 2020. However, Apple

<p>application submitted to the BAAQMD. The use of “Activated Carbon” canisters to remove VOCs can be regulated under both the Clean Air Act and RCRA. At the time of EPA’s inspection, BAAQMD had not received Apple’s Clean Air Act Permit application to regulate the container as a device under the Clean Air Act⁸.</p> <p>On September 13, 2023, Apple applied for a Permit Modification to BAAQMD requesting that the facility’s 55-gallon canister of “Activated Carbon” be added as an abatement device for the facility’s 1,700-gallon solvent waste tank (Attachment H).</p>	 <p>Photo 7b (P8170061.JPG)</p>	<p>does not appear to have performed a waste determination on the spent “Activated Carbon,” between 2020 and 2023, to justify why it has been managing the waste as NRHW. Further review of this waste stream and the process by which it is managed is required to determine if the “Activated Carbon” is a hazardous waste or not at disposal.</p> <p>Section § 66262.11 of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [40 CFR § 262.11].</p> <p>This potential violation is still outstanding.</p>
<p><u>Observation #8 (Jan 2024):</u> EPA observed three chemicals being used in Tool 8-02C in B(4) B(4) - B(4) of Apple’s B(4) Area (Photo 8a). The three chemicals used were “B(4) B(4) (Flashpoint = 90°F)”, “B(4) B(4) (Flashpoint = 52.5°F)”, and “B(4) B(4) (pH = 13.2)”. Once spent, the “B(4) B(4)” and “B(4) B(4)” wastes are managed as ignitable (D001 Waste) solvents and pumped into 5-gallon carboy containers that are located under the grated floor in B(4) (Attachments I – K). The spent solvent containers are then transferred to Apple’s Bunker Area for long-term storage.</p> <p>However, the “B(4)” chemical is not used as a solvent in the process but is accumulated in the same 5-gallon carboys used to</p>	 <p>Photo 8a (IMG_5542.JPG)</p>	<p><u>Potential Violation #8 (Jan 2024):</u> EPA observed the chemical “B(4)” being used in Tool 8-02C in B(4) B(4) - B(4) of Apple’s B(4) Area. Based on the SDS (Attachment K), “B(4)” has a pH of 13.2 prior to use. Under RCRA, a spent liquid with a pH of greater than 12.5 may be regulated as a corrosive waste (D002 Waste) when disposed of and therefore should be evaluated for its corrosive properties upon disposal. Apple does not appear to have performed a waste determination on the spent waste and this waste stream appears to be a RCRA regulated hazardous waste.</p> <p>Moreover, Apple does not appear to have a permit to treat its solvent or corrosive waste in the 5-gallon carboy units. Nor does the facility appear to meet an exemption from treatment, under RCRA.</p>

⁸ A copy of Apple’s Clean Air Act permit application was requested, and it was documented that Apple applied for the device to be covered under the Clean Air Act on September 13, 2023, after EPA’s initial RCRA inspection.

store the spent solvents. Based on the SDS, "B(4)" has a pH of 13.2 prior to use. Under RCRA, a spent liquid with a pH greater than or equal to 12.5 is considered a corrosive waste (D002 Waste). Apple does not appear to have performed a waste determination on the 5-gallon carboys, to verify whether the mixture of spent solvents (D001 Waste) and the "B(4)" waste, are also hazardous for corrosivity at the point of origination.

At the time of EPA's inspection, Apple was managing the 5-gallon carboy containers (D001 Waste) used to accumulate the solvent waste, as SAA containers. These containers are attached to Apple's solvent tools and are filled on a continuous basis.

Under RCRA, SAA containers and containers under 26.4-gallons (0.1 m³) are exempt from the RCRA air emission requirements for containers. Therefore, the containers and the equipment in contact with solvents greater than 10% ppmw are not subject to the monitoring, tagging or record keeping requirements for hazardous waste units under Subparts BB and CC of RCRA.

Observation #9 (Jan 2024): EPA observed two solvent baths of "Isopropyl Alcohol" (100%) being used in Apple's Solvent B(4) B(4) (Tool 8-112) and Solvent B(4) B(4) (Tool 6-15) tools located in the facility's B(4) – B(4) Area (Photos 9a – 9d). Signs were posted on the outside of the tools, documenting what specific solvents were being used in each

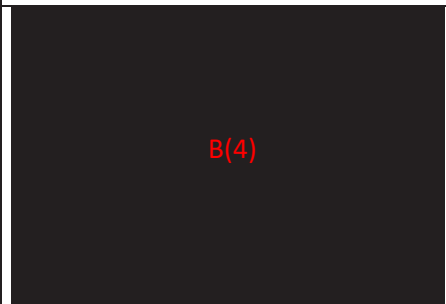


Photo 9a (IMG_5554.JPG)

Section [§ 66262.11](#) of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [\[40 CFR § 262.11\]](#).

Section [§ 66270.1\(c\)](#) of Title 22 of the CCR states that a permit is required for the "transfer," "treatment," "storage," and "disposal of any waste which is hazardous waste pursuant to section 66261.3 and as defined in section 66260.10 [\[40 CFR § 270.1\(c\)\]](#)."

Please note, diluting hazardous waste whether intentionally or unintentionally to remove a wastes' characteristics is considered a form of treatment. Under RCRA it is improper to treat hazardous waste without a permit unless the type of treatment is covered under an exemption.

These potential violations are still outstanding.

Potential Violation #9 (Jan 2024): Apple failed to perform a waste determination for its spent "Isopropyl Alcohol" waste generated from the facility's Solvent B(4) B(4) (Tool 8-112) and B(4) B(4) (Tool 6-15) tools located in the facility's B(4) – B(4) Area. For both of these tools, "Isopropyl Alcohol" once spent may be regulated as a D001 ignitable

tool. At the time of EPA's inspection, the "Isopropyl Alcohol" solvents were not being managed as a waste but as a product.

Under RCRA, once a solvent is classified as spent, Apple is required to perform a waste determination to determine whether the materials are hazardous in nature at the point of origination.

Furthermore, according to Apple's SDS for "Isopropyl Alcohol", the chemical contains highly flammable liquids and has a flash point of 53.6°F, prior to use (Attachment L). Under RCRA, a spent solvent waste with a flash point of less than 140°F is considered characteristically hazardous for ignitability (D001 waste) and therefore should be tested to confirm if the waste is hazardous due to its ignitability.

In addition, Apple also does not appear to have properly characterized its "B(4)" waste, to verify whether this waste is corrosive (D002 Waste) at the point of origination. According to the SDS for "B(4)" there is no data available on the pH for this chemical product prior to use (Attachment M). Under RCRA, Apple is required to properly characterize the pH of the liquid to determine whether the liquid is characteristically hazardous for corrosivity (D002 Waste) upon disposal.

B(4)

Photo 9b (IMG_5555.JPG)

B(4)

Photo 9c (IMG_5556.JPG)

B(4)

Photo 9d (IMG_5557.JPG)

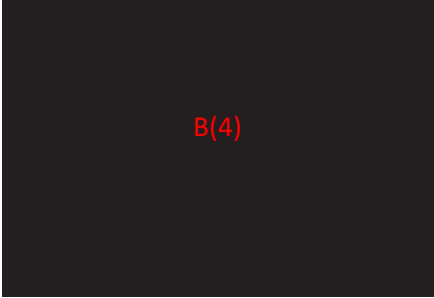


waste at the point of origination. This waste stream appears to be a RCRA regulated hazardous waste upon disposal.

Apple also failed to properly characterize its "B(4)" waste to verify whether this waste is corrosive (D002 Waste) at the point of origination. It is unknown whether this waste stream is RCRA regulated hazardous waste upon disposal.

Section [§ 66262.11](#) of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [\[40 CFR § 262.11\]](#).

Please note, diluting hazardous waste whether intentionally or unintentionally to remove a wastes' characteristics is considered a form of treatment. Under RCRA it is improper to treat hazardous waste without a permit unless the type of treatment is covered under an exemption.

This potential violation is still outstanding.

<p><u>Observation #10 (Jan 2024):</u> EPA observed at least two solvent baths of “Isopropyl Alcohol” (100% and 98-100%) and one bath of “B(4)” (< 100%), being used in conjunction with Apple’s Solvent B(4) (Tool 8-133), B(4) (Tool 8-134), and B(4) B(4) B(4) tools located in the facility’s B(4) Area (Photos 10a – 10c). Signs were posted on the outside of B(4), B(4) and the Solvent Spray Processor indicating what specific solvents were being used in each tool. At the time of EPA’s inspection, the “Isopropyl Alcohol” and B(4) B(4) solvents were not being managed as a waste but as a product.</p> <p>Under RCRA, once a solvent is classified as spent, Apple is required to perform a waste determination to verify whether the wastes generated are hazardous in nature at the point of origination.</p> <p>Furthermore, according to Apple’s SDS for “Isopropyl Alcohol (Attachment L)” and “B(4)” (Attachment N)”, the chemicals are highly flammable liquids with flash points of 53.6°F and > 109°F respectively, prior to use. Under RCRA, a liquid waste with a flash point of less than 140°F is considered characteristically hazardous for ignitability (D001 waste) and therefore should be tested to confirm if the wastes are hazardous due to ignitability.</p> <p>Apple also does not appear to have properly characterized its “B(4)” and “B(4)”</p>	 <p>Photo 10a (IMG_5565.JPG)</p>  <p>Photo 10b (IMG_5567.JPG)</p>  <p>Photo 10c (IMG_5568.JPG)</p>	<p><u>Potential Violation #10 (Jan 2024):</u> Apple failed to properly characterize its spent “Isopropyl Alcohol” and B(4) B(4) waste generated from the facility’s Solvent B(4) (Tool 8-133), B(4) (Tool 8-133), and B(4) B(4) tools located in the facility’s B(4) Area as a D001 ignitable waste at the point of origination.</p> <p>Apple also failed to properly characterize its “B(4)” and “B(4)” wastes to verify whether these wastes are corrosive (D002 Waste) at the point of origination.</p> <p>All four of these waste streams appear to be RCRA regulated hazardous waste upon disposal.</p> <p>Please also note, diluting hazardous waste whether intentionally or unintentionally to remove a wastes’ characteristics is considered a form of treatment. Under RCRA, it is improper to treat hazardous waste without a permit unless the type of treatment is covered under an exemption.</p> <p>Section § 66262.11 of Title 22 of the CCR states that a person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [40 CFR § 262.11].</p> <p>This potential violation is still outstanding.</p>
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wastes, to verify whether these wastes are corrosive (D002 Waste) at the point of origination. According to the SDS for “B(4)” (Attachment O), the pH has not been evaluated, prior to use and the product contains < 4% of Tetramethylammonium Hydroxide, a known corrosive. In addition, the “B(4)” chemical has a pH between 11.5 and 12.5, prior to use (Attachment P). Under RCRA, a pH greater than or equal to 12.5 is considered a corrosive waste upon disposal.

Observation #11 (Jan 2024): EPA observed that Apple’s solvent waste vents are connected to the facility’s 5-gallon carboy spent solvent containers in Apple’s B(4) Areas (Photo 11a). These same solvent waste vents are also connected to each of the facility’s solvent tools and spray units onsite.

According to Apple, each solvent vent in the B(4) Area is further connected to the facility’s overall solvent exhaust system which carries VOCs from each B(4) to “Activated Carbon” boxes located on the roof of Building 1 (Photo 11b). The purpose of the “Activated Carbon” boxes is to capture any VOCs introduced to the solvent exhaust system, prior to the vapors being released directly to the atmosphere through the two general exhaust stacks (Photo 11c).

Based on the information provided to EPA, it does not appear that the facility has properly tested the “Activated Carbon” for the purposes of

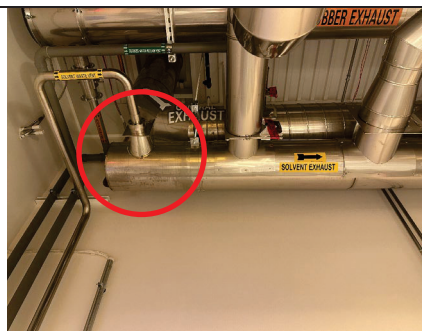


Photo 11a (IMG_5548.JPG)



Photo 11b (IMG_5589.JPG)



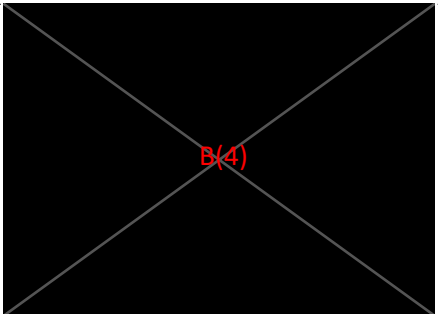
Photo 11c (IMG_5591.JPG)



Potential Violation #11 (Jan 2024): EPA observed several “Activated Carbon” boxes on the roof of Building 1. Specifically, each of the B(4) in the B(4) Area vent directly to an “Activated Carbon” box which is responsible for filtering out VOCs that are generated onsite.

At the time of the inspection, Apple’s “Activated Carbon” boxes were not covered under the facility’s Clean Air Act permit as an air emissions device. Nor were the devices included or referenced in Apple’s October 2022 Hazardous Waste Tank System Assessment.

Later it was determined that Apple has been managing their “Activated Carbon” as a NRHW since at least December 14, 2020. However, Apple does not appear to have performed a waste determination on the spent “Activated Carbon,” between 2020 and 2023, to justify why it has been managing the waste as NRHW. Further review of this waste stream and the process by which it is managed is required.

Section § 66262.11 of Title 22 of the CCR states that a person who

<p>disposal. Apple manages its “Activated Carbon” waste as NRHW.</p> <p>Apple also does not appear to have included all of the solvent waste streams when calculating the breakthrough times for the “Activated Carbon” boxes to ensure that no VOCs are released into the atmosphere onsite.</p> <p>Apple’s current BAAQMD Permit, does not reference the “Activated Carbon” boxes (i.e., Abatement Device No. A-13). Nor does it discuss the overall management of the boxes.</p> <p>Based on Apple’s 02/23/24 response letter to EPA, the facility confirmed that the devices are part of a pending application for a BAAQMD air permit modification. Additional review of Apple’s test results pertaining to its “Activated Carbon” waste are needed to determine if the waste is regulated as a hazardous waste.</p>		<p>generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste [40 CFR § 262.11].</p> <p>This potential violation is still outstanding.</p>
<p><u>Observation #12 (Jan 2024):</u> EPA observed eleven closed 5-gallon containers of liquid waste stacked against the wall in Apple’s Bunker Area (Photo 12a). The labels on these eleven containers identified the contents as corrosive liquids (D002 Waste).</p> <p>The labels on three of the eleven containers were not clearly visible for inspection without physically moving each of the containers (Photo 12a). The ASDs on each container appeared to be less than the 90-day storage time frames for long-term storage (Photo 12b).</p>	 <p>Photo 12a (IMG_5592.JPG)</p>	<p><u>Potential Violation #12 (Jan 2024):</u> EPA observed eleven closed 5-gallon containers of corrosive liquids (D002 Waste) in Apple’s Bunker Area. Three of the container labels were not clearly visible for inspection.</p> <p>This waste all appeared to be RCRA regulated hazardous waste.</p> <p>Sections §§ 66262.34(a)(1)(A) and 66262.34(f)(1) of Title 22 of the CCR states that generators who accumulate hazardous waste on site without a permit or grant of interim status shall comply with the following:</p> <p>(1) The date upon which each period of accumulation begins</p>

<p>Apple managed this area as a less than 90-day hazardous waste accumulation area. At the time of EPA's inspection, an Apple employee was actively working in the Bunker Area, but did not appear to be filling or emptying the containers.</p> <p>The Bunker Area is located downstream from Apple's initial waste generation activities. Apple's 5-gallon corrosive waste containers are not tested at the point of origination but managed as corrosive waste (D002 Waste) once transferred to the Bunker Area for long-term storage.</p>	 <p>Photo 12b (IMG_5603.JPG)</p>	<p>shall be clearly marked and visible for inspection on each container and portable tank [40 CFR § 262.17(a)(5)(A) – (5)(C)].</p> <p>This potential violation is still outstanding.</p>
<p><u>Observation #13 (Jan 2024):</u> EPA observed twelve additional closed 5-gallon containers of liquid waste stacked against the opposite wall in Apple's Bunker Area (Photo 13a). The labels on these twelve containers identified the contents as flammable liquids (D001 Waste).</p> <p>The labels on eight of the twelve 5-gallon containers stored in the Bunker Area were not clearly visible for inspection, without physically moving each of the containers (Photo 13a). The ASDs were written on each container and appeared to be stored in the Bunker for less than 90-days (Photos 13b and 13c).</p> <p>Apple does manage this area as a less than 90-day hazardous waste accumulation area. At the time of EPA's inspection, an Apple employee was actively working in the Bunker Area, but did not appear to be filling or emptying the containers.</p>	 <p>Photo 13a (IMG_5594.JPG)</p>  <p>Photo 13b (IMG_5598.JPG)</p>	<p><u>Potential Violation #13 (Jan 2024):</u> EPA observed twelve closed 5-gallon containers of flammable liquids (D001 Waste) in Apple's Bunker Area. Eight of the twelve container labels were not clearly visible for inspection.</p> <p>This waste all appeared to be RCRA regulated hazardous waste.</p> <p>Sections §§ 66262.34(a)(1)(A) and 66262.34(f)(1) of Title 22 of the CCR states that generators who accumulate hazardous waste on site without a permit or grant of interim status shall comply with the following:</p> <p>(1) The date upon which each period of accumulation begins shall be clearly marked and visible for inspection on each container and portable tank [40 CFR § 262.17(a)(5)(A) – (5)(C)].</p> <p>This potential violation is still outstanding.</p>

The Bunker Area is located downstream from Apple's initial waste generation activities. Apple's 5-gallon solvent waste containers are not tested at the point of origination but managed as ignitable waste (D001 Waste) once transferred to the Bunker Area for long-term storage.

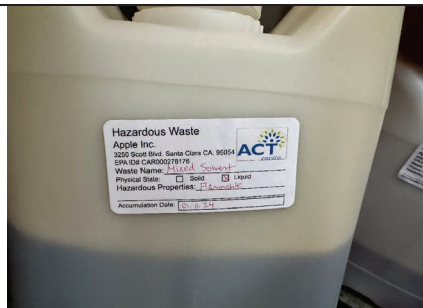


Photo 13c (IMG_5600.JPG)

AREAS OF CONCERN

Apple's CAA (The Bunker Area)

- Apple's Bunker Area appears to be too small to handle the volume and frequency of hazardous waste containers being generated onsite. EPA recommends that Apple expand the area currently being used to accumulate hazardous waste in the CAA long-term – **Corrected by 01/16/24.**
- Some of Apple's hazardous waste containers that enter the less than 90-day Bunker Area for long-term storage, are not properly labeled or dated prior to being stored in the facility's CAA – **Corrected by 02/23/24.**
- All hazardous waste containers that are stored in Apple's less than 90-day Bunker Area shall have labels that are clearly visible for inspection without having to physically move the containers.

Apple's B(4) Area

- EPA observed red SAA containers (Step Cans) in Apple's B(4) Area, inside and outside Room 1025. The containers were marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**

Apple's B(4) Area

EPA observed a red SAA container (Step Can) in Apple's B(4) Area (Room 1021). The container was marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**

Chemical Pass-Through Area

- EPA observed red SAA containers (Step Cans) in Apple's Chemical Pass-Through Area. The containers were marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**

Apple's (b)(4) (b)(4) 2 Area

- EPA observed a red SAA container (Step Can) in Apple's (b)(4) (b)(4) 2 Area. The container was marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**

Apple's (b)(4) / (b)(4) Area

- EPA observed a red SAA container (Step Can) in Apple's (b)(4) Area. The container was marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**

Apple's (b)(4) / (b)(4) Area

- EPA observed a red SAA container (Step Can) in Apple's (b)(4) Area. The container was marked as having as its contents, "Wipes and or PPE contaminated with IPA, Acetone, Ethanol and Butylacetate." According to Apple, this waste description for the facility's solid waste stream is incorrect and they will remove the words "Ethanol" and "Butylacetate" from the waste description but continue to manage the contents as RCRA regulated hazardous waste – **Corrected by 02/23/24.**
- EPA observed that the sign posted on Solvent Tool 8-113 ((b)(4)) in Apple's (b)(4) / (b)(4) Area needs to be updated to remove the chemical " (b)(4) " from the posted sign, which according to Apple is no longer being used in the facility's semiconductor process.

Records Review

Record(s)	Year(s)	Observation(s) and Potential Violations
Manifests:	2020 - 2023	<u>Potential Violation #14:</u> According to Apple's records, the facility shipped 83 shipments of waste designated as "Water with Solvents" (CA-133 Waste) to the World Oil Recycling facility located at 2000

		<p>N. Alameda St in Compton, CA (EPA ID No. CAT 080 013 352) between 06/29/22 and 12/08/22. This waste was being sent off for the purposes of disposal and appears to have been improperly characterized as NRHW liquid by Apple. The waste actually appears to be an ignitable waste (D001 Waste) under RCRA (See Potential Violation #6).</p> <p>Apple also shipped approximately 145 shipments of waste designated as “Water with Solvents” (CA-133 Waste) to the World Oil Recycling facility in Compton, CA between 01/05/23 and 12/22/23. This waste was being sent off for the purposes of disposal and appears to have been improperly characterized as NRHW liquid by Apple. The waste appears to be an ignitable waste (D001 Waste) under RCRA (See Potential Violation #6).</p> <p>Because Apple appears to have improperly characterized this waste stream, the facility did not include the proper federal waste codes on the manifest that best describes the waste being shipped off-site, a potential violation under RCRA.</p> <p>Section § 66262.23(a)(1) of Title 22 of the CCR requires the generator of any hazardous or extremely hazardous waste to be transported off-site or into California shall complete the generator and waste section and sign the manifest certification according to the Uniform Hazardous Waste Manifest, EPA Form 8700-22 and EPA Form 870-2A)and instructions [40 CFR § 262.20(a)(1)].</p> <p>This potential violation is still outstanding.</p>
LDR Forms:	2020 - 2023	<p>Potential Violation #15: According to Apple’s records, the facility shipped 83 shipments of waste designated as “Water with Solvents” (CA-133 Waste) to the World Oil Recycling facility located at 2000 N. Alameda St in Compton, CA (EPA ID No. CAT 080 013 352) between 06/29/22 and</p>

		<p>12/08/22. This waste was being sent off for the purposes of disposal and appears to have been improperly characterized as NRHW liquid by Apple. The waste actually appears to be an ignitable waste (D001 Waste) under RCRA (See Potential Violation #6).</p> <p>Apple also shipped approximately 145 shipments of waste designated as "Water with Solvents" (CA-133 Waste) to the World Oil Recycling facility in Compton, CA between 01/05/23 and 12/22/23. This waste was being sent off for the purposes of disposal and appears to have been improperly characterized as NRHW liquid by Apple. The waste actually appears to be an ignitable waste (D001 Waste) under RCRA (See Potential Violation #6).</p> <p>Failure to properly characterize this waste may have resulted in the improper treatment and disposal of this waste stream under the Land Disposal Restriction (LDR) requirements of RCRA.</p> <p>Prior to World Oil Recycling's May 5, 2022 Waste Profile Sheet was created for Apple's "Water and Solvents" waste (Attachment G), Apple was managing its spent solvent waste as both an ignitable waste and as a F-Listed waste stream (D001 and F003 Waste - Attachment Q). Under RCRA, the improper characterization and disposal of a hazardous waste are strictly prohibited.</p> <p>As such, because Apple was venting the VOCs from its spent solvent tank, through the "Activated Carbon" canister, then the "Activated Carbon" generated prior to May 5, 2022, should also have been managed as an F-Listed waste stream. Apple does not appear to have managed its "Activated Carbon" as a hazardous waste, prior to May 5, 2022.</p>
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		<p>Apple shipped at least 3 manifests of improperly characterized “Activated Carbon” waste (Attachment R) off-site as NRHW. Failure to properly characterize this waste may have resulted in the improper treatment and disposal of this waste stream under the Land Disposal Restriction (LDR) requirements of RCRA.</p> <p>Specifically, the facility shipped RCRA regulated waste (D001 and F003 waste) off as NRHW on 12/14/20 (Manifest 014565900 FLE), 11/05/21 (Manifest 015769563 FLE) and 02/02/22 (Manifest - 15769825 FLE).</p> <p>Section § 66268.7 of Title 22 of the CCR requires a generator of hazardous waste to determine if the waste has to be treated to meet applicable treatment standards before it can be land disposed [40 CFR § 268.7].</p> <p>These potential violations are still outstanding.</p>
Biennial Reports:	2019 and 2021	Reviewed.
Exception Reports:	2020 - 2023	Not Reviewed.
Weekly Inspections:	2023	<p><u>Potential Violation #16:</u> LQGs are required to conduct weekly inspections of their CAAs as well as document that those weekly inspections were conducted, under RCRA. Apple does not appear to have either performed weekly inspections or maintained records documenting that the weekly inspections were performed in 2023.</p> <p>Apple is missing 15 weekly inspection logs for calendar year 2023. Specifically, the facility is missing inspection logs for the weeks of 02/20/23, 05/19/23, 05/26/23, 06/02/23, 06/09/23, 06/16/23, 06/23/23, 06/30/23, 07/07/23, 07/14/23, 07/21/23, 07/28/23, 08/04/23, 08/11/23, and 08/18/23.</p> <p>Section § 66265.174 of Title 22 of the CCR states that the owner or operator shall</p>

		<p>inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors [40 CFR § 262.17(a)(1)(v)].</p> <p>This potential violation is still outstanding.</p>
Subpart BB Monitoring Equipment Calibrations:	2020 - 2023	<p><u>Potential Violation #17</u>: EPA reviewed Apple's Field Service Reports, monitoring data and the facility's Subparts BB and CC Emissions Monitoring Procedures. Based on EPA's review, Apple did not properly calibrate its Eagle 2 Multigas Detector with PID sensor, a total of 34 times [34 Times = 4 Times (2020) + 12 Times (2021) + 12 Times (2022) + 7 Times (2023)] between 2020 and 2023.</p> <p>Between 09/01/20 and 07/31/23, Apple only calibrated its Multigas Detector on one occasion (i.e., 11/24/20) before use, on the same day of use, when monitoring for VOC emissions onsite. Specifically, Apple documented that it calibrated the RKI Eagle 2 Multigas Detector with PID Sensor on 06/25/19, 11/25/19, 07/08/20, 11/24/20, 06/17/21, 07/5/22, 01/12/23, and 06/20/23. The only calibration day that matches the days of monitoring between 09/01/20 and 07/31/23 is the calibration performed on 11/24/20. Failure to calibrate a monitoring device before use, on the same day of use is a potential violation under RCRA.</p> <p>Section § 66265.1063(b)(3) of Title 22 of the CCR states that leak detection monitoring, as required in Sections 66265.1052 through 66263.1062, shall comply with following requirements:</p> <ol style="list-style-type: none">(1) Monitoring shall comply with Reference Method 21 in 40 CFR, part 60, incorporated by reference in Section 66260.11 of this chapter.(2) The detection instrument shall meet the performance criteria of Reference Method 21.

		<p>(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.</p> <p>(4) Calibration gases shall be:</p> <p>(A) Zero air (less than 10 ppm of hydrocarbon in air);</p> <p>(B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane [40 CFR § 265.1063(b)(3)].</p> <p>This potential violation is still outstanding.</p>
Subpart BB Monitoring Records:	2020 - 2023	Reviewed.
Daily Tank Inspections:	2023	<p><u>Potential Violation #18</u>: EPA reviewed the 2023 daily tank inspection records for Apple's 1,700-gallon solvent waste tank. Based on the documents submitted, the facility doesn't appear to have performed daily inspections of Apple's 1,700-gallon spent solvent tank every day that RCRA hazardous waste (D001 Waste) was stored in the tank. Between 01/01/23 and 08/18/23, Apple appears not to have performed daily inspections 48 times over the weekend in 2023.</p> <p>Specifically, the facility is missing daily inspection records for 01/07/23, 01/08/23, 01/14/23, 01/15/23, 01/21/23, 01/22/23, 02/04/23, 02/05/23, 02/25/23, 02/26/23, 03/04/23, 03/05/23, 03/11/23, 03/12/23, 03/18/23, 03/19/23, 04/01/23, 04/02/23, 04/08/23, 04/09/23, 04/15/23, 04/16/23, 04/22/23, 04/23/23, 04/29/23, 04/30/23, 05/13/23, 05/14/23, 05/27/23, 05/28/23, 06/03/23, 06/04/23, 06/10/23, 06/11/23, 06/17/23, 06/18/23, 06/24/23, 06/25/23, 07/01/23, 07/02/23, 07/08/23, 07/09/23, 07/22/23/ 07/23/23, 07/29/23, 07/30/23, 08/12/23, and 08/13/23.</p> <p>After the inspection, EPA determined that Apple's solvent waste tank should have been regulated as a hazardous waste unit and the solvents regulated as an ignitable</p>

		<p>waste (D001 Waste) in 2023 (See Potential Violation #6). Under RCRA, daily inspections are required to be performed on hazardous waste tanks subject to the Subpart J requirements, anytime a RCRA hazardous waste is being accumulated in a RCRA hazardous waste tank, including weekends and holidays.</p> <p>Section § 66265.195(a) of Title 22 of the CCR states that the owner or operator shall inspect, where present, at least once each operating day [40 CFR § 265.195(a)].</p> <p>This potential violation is still outstanding.</p>
<p>Subpart CC Applicability:</p> <ul style="list-style-type: none"> - Spent Solvent Waste Tank (1,700-gallons) - Solvent Waste Lift Station (67-gallons) 	2020 - 2023	<p><u>Potential Violation #19:</u> After EPA's inspection, it was determined that the source of the spent solvent waste entering Apple's 1,700-gallon solvent waste tank is characteristic for ignitability and should be, at a minimum, be managed as a D001 hazardous waste stream at the point of origination.</p> <p>As such, Apple failed to properly evaluate the facility's spent solvent waste tank (SW-TNK-2) and the solvent waste lift station (SW-LS) to determine if the hazardous waste management units are subject to the RCRA air emission standards under RCRA.</p> <p>Section § 66265.1083(b) of Title 22 of the CCR states that the owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in sections 66265.1085 through 66265.1088 as applicable to the hazardous waste management unit, except as provided for in subsection (c) of this section [40 CFR § 265.1083(b)].</p> <p>This potential violation is still outstanding.</p>
<p>Employee Training Records:</p> <ul style="list-style-type: none"> - Allan Sherlock - Demonte Rose - Sameei Al Khafaji 	2021 - 2023	Reviewed.

Consolidated Emergency Response/Contingency Plan:	01/21/22	Reviewed.
Spill Reports:	2020 - 2023	Not Applicable.
San Jose-Santa Clara Regional Wastewater Facility Industrial Wastewater Discharge Permit: - Permit No. SC-461B	11/20/20 – 11/19/25	Reviewed.
Bay Area Air Quality Management District – Permit to Operate: - Air Permit No. 22839	05/06/23 – 05/01/24	Reviewed.

Closing Conference

On August 17, 2023, August 18, 2023 and January 16, 2024, Apple's representatives participated in Closing Conferences with EPA Region 9. The EPA inspectors reviewed the inspection activities and summarized some potential violations and areas of concern.

Inspector Rollins gave an estimated date as to when Apple might receive the final RCRA hazardous waste inspection report. EPA thanked the facility for its hospitality and full cooperation. The overall inspection was concluded on January 16, 2024 at 4:50 pm.

SECTION III – LIST OF ATTACHMENTS

- Attachment A - Apple Photograph Log
- Attachment B - SB01 Air Permit 22839
- Attachment C - SB01 Industrial Wastewater Permit
- Attachment D - Tiered Permitting Unit – AWN System
- Attachment E - Tiered Permitting Unit – HMR System
- Attachment F - Tiered Permitting Unit – Solvent Tank System
- Attachment G - SB01 Water with Solvents Profile
- Attachment H - Permit Modification Application_ Plant 22839
- Attachment I - (B(4)) SDS
- Attachment J - (B(4)) SDS
- Attachment K - (B(4)) SDS
- Attachment L - IPA SDS
- Attachment M - (B(4)) (B(4)) SDS
- Attachment N - (B(4)) UHP SDS
- Attachment O - (B(4)) SDS
- Attachment P - (B(4)) (B(4)) SDS
- Attachment Q - CH1505500 Mixed Flam Liquid SB01
- Attachment R - Improperly Characterized Activated Carbon Shipments